

Notice of Allowability

Application No.

10/035,716

Examiner

Brian J. Sines

Applicant(s)

GUERRA, CARLOS

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the response filed 8/23/2004.
2. ☒ The allowed claim(s) is/are 1-5,7-9,13,14 and 16-19.
3. ☒ The drawings filed on 10/26/2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Allowable Subject Matter

Claims 1 – 5, 7 – 9, 13, 14 and 16 – 19 are allowed.

The following is an examiner's statement of reasons for allowance:

Kuznetsov *et al.* (U.S. Pat. No. 4,329,868) teach a method for the determination of hydrogen content in inorganic materials. Busch *et al.* (U.S. Pat. No. 5,473,162 A) teach a gas analyzer incorporating the use of infrared emission detectors.

The cited prior art neither teach or fairly suggest the further incorporation within the apparatus a detector for detecting oxygen in the form of carbon monoxide in the sample; an infrared detector for detecting oxygen in the form of carbon dioxide in the sample; a scrubber operative to remove water from the analyte stream; and a thermal conductivity cell for detecting nitrogen in the sample.

The cited prior art neither teach or fairly suggest that the method further include a detecting step comprising employing a heated copper oxide catalyst to convert the hydrogen compounds in the analyte stream to water and providing an infrared detector immediately downstream of the catalyst to detect hydrogen as a function of the detected water. The cited prior art neither teach or fairly suggest that the compounds further include water, hydrogen and metal hydrides.

The cited prior art neither teach or fairly suggest a method of determining the concentration of hydrogen in the form of different hydrogen-containing compounds, wherein the method comprises the steps of: detecting the hydrogen compounds in an analyte stream as a function of temperature to identify and determine specific hydrogen compounds by employing a heated copper oxide catalyst to convert the hydrogen

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compounds in the analyte stream to water and providing an infrared detector immediately downstream of the catalyst to detect hydrogen as a function of the detected water; calculating the effect of carbon dioxide on the level of hydrogen measured by the infrared detector; and then compensating the measured hydrogen level based upon the calculating step.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J. Sines, Ph.D. whose telephone number is (571) 272-1263. The examiner can normally be reached on Monday - Friday (11:30 AM - 8 PM EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on (571) 272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jim Warden
Supervisory Patent Examiner
Technology Center 1700